

## ABSTRACT OF THE DISCLOSURE

A process of rejuvenating a diffusion aluminide coating on a component. The rejuvenation process involves treating the coating with an aqueous solution of nitric acid and phosphoric acid until at least part of the additive layer of the coating has been removed, but the diffusion zone underlying the additive layer remains. The exposed surface of the component is then re-aluminized to deposit additional aluminum to build up the additive layer to a desired thickness. While potentially useful for a variety of situations, the process is particularly applicable to a diffusion aluminide coating that has been deposited on a component to have an excessively thick additive layer, and prior to the component being returned to service.